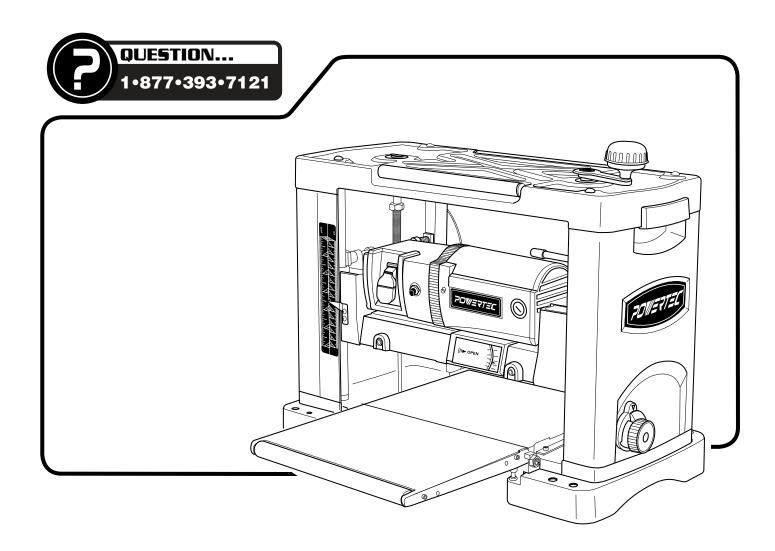
Owner's Manual

POWETTEC PRO

13" PLANER WITH BUILT-IN DUST COLLECTION







Visit us on the web at www.southerntechllc.com

You will need this manual for safety instructions, operating procedures, and warranty. Put it and the original sales invoice in a safe, dry place for future reference.

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PRODUCTION SPECIFICATIONS

Horsepower (Maxmum Developed)	2.4 HP
Voltage	120 V
Amperes	1
5	
Hertz	60
Phase	Single
Motor RPM	17,500 RPM
Table Size	13" x 10-1/4"
Blade Width	13"
Maximum Depth of Cut	3/32"
Cuts per Minute	16,000
Dust Collection Port	2-1/2"

SAFETY RULES

WARNING

For your own safety, read and understand all warnings and operating instructions before using any tool or equipment.

A WARNING

Some dust created by operation of power tool contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear OSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

AWARNING

Failure to follow these rules may result in serious personal injury. Remember that being careless for even a fraction of a second can result in severe personal injury.

WORK PREPARATION

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of the tool.
- Nonslip protective footwear is recommended.
- · Wear protective hair covering to contain long hair.
- Wear eye and hearing protection. Always use safety glasses. Eye protection equipment should comply with ANSI Z87.1 standards. Hearing equipment should comply with ANSI S3.19 standards.
- · Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

WORK AREA PREPARATION

- Keep work area clean. Cluttered work areas and benches invite accidents.
- Work area should be properly lighted.
- Do not use the machine in a dangerous environment.
 The use of power tools in damp or wet locations or in rain can cause shock or electrocution.
- Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Use the proper extension cord. Make sure your extension cord is in good condition and should have a grounding prong and the three wires of extension cord should be of the correct gauge.
- Keep children and visitors away. Your shop is a potentially dangerous environment. Children and visitors can be injured.
- Make your workshop childproof with padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL MAINTENANCE

- Turn the machine "OFF", and disconnect the machine from the power source prior to inspection.
- Maintain all tools and machines in peak condition. Keep tools sharp and clean for best and safest performance.
- Follow instructions for lubricating and changing accessories.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect tool's operation.
- Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
- A guard or any other part that is damaged should be repaired or replaced. Do not perform makeshift repairs.

TOOL OPERATION

- Avoid accidental start-up. Make sure that the tool is in the "OFF" position before plugging in.
- Use the right tool for your job. Do not force your tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing parts.
- Don't force the workpiece on the machine. Damage to the machine and/or injury may result.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Loss of balance can make you fall into a working machine, causing injury.
- Never stand on tool. Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- Know your tool. Learn the tool's operation, application and specific limitations before using it.
- Use recommended accessories. Use of improper accessories may cause damage to the machine or injury to the user.
- Handle workpiece correctly. Keep hands away from moving parts.
- Turn tool off if it jams.

CAUTION: Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.

AWARNING

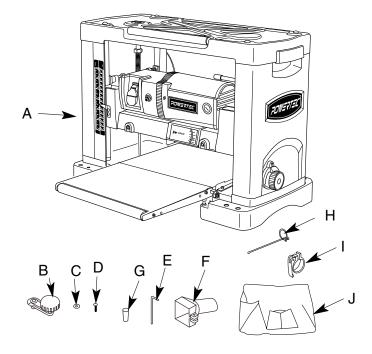
Do not attempt to operate tool until it is completely assembled according to the instructions.

ASSEMBLY

UNPACKING

- Check freight damage before opening the package. If freight damage is noticed, file claim with the carrier immediately.
- Check for complete part list. Contact Customer Service Center immediately for missing parts.
- This Planer comes mostly assembled. It requires some additional assembling, installation, and adjustment before use.
- · Locate the following parts before assembling:
- A. Planer
- B. Elevation Crank Handle Assembly
- C. 6mm Flat Washer
- D. 6-1.0 x 20mm Socket Pan Head Bolt
- E. 4mm Hex Wrench
- F. Dust Chute
- G. Magnet (2)
- H. Dust Collection Wire
- I. Dust Bag Clamp
- J. Dust Bag

Figure 1 Unpackaging



INSTALL ELEVATION CRANK HANDLE

Refer to Figure 2 and 3

- The planer handle can be installed either to the top-right or top-left of the planer.
- Remove plug from the end of elevation screw (a)
- Insert handle (b) onto elevation screw top (a).
- Secure handle with bolt using the enclosed wrench (c).

Figure 2

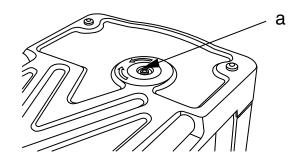
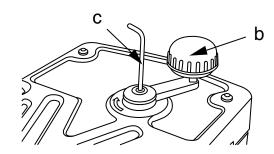


Figure 3

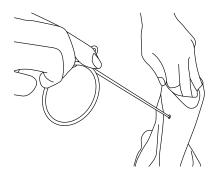


ATTACH DUST COLLECTION BAG

Refer to Figure 1 and 4

- Install the Dust Chute (F) by slipping it over the Dust Port. Tighten the screw on the Dust Chute (F).
- Insert Dust Bag Wire (H) through a small hole on the sleeve of Dust Bag (J).

Figure 4 - 1

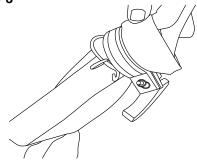


• Draw the open end of Dust Bag (J) sleeve through the ring of Dust Bag Wire (H).



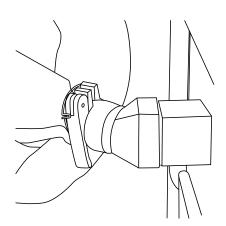
• Place Clamp (I) over Dust Bag (J) Sleeve.

Figure 4 - 3



• Slide Sleeve with Clamp (I) and Dust Bag Wire (H) Ring over Dust Chute (F).

Figure 4 - 4



- Secure Dust Bag (J) in position. Rotate the handle on the Clamp (I) to adjust the clamp size so it can slide over the Dust Chute (F). Press the handle to tighten the Clamp (I).
- The Dust Bag (J) should be secured on the Dust Chute (F) now.

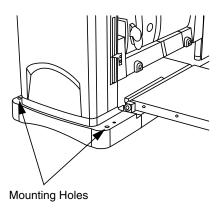
MOUNT PLANER

Refer to Figure 5

- The planer must be installed in a well-lighted area with correct power supply.
- Eight mounting holes are on the base of planer. If pre-drilled holes do not exist on the bench surface, drill four holes.
- Planer can be installed on either a workbench or a tool stand by using bolts, lock washers, and hex nuts. (mounting hardware not included)

- The planer must be bolted to a firm and level surface.
- There must be enough clearance for the moving work piece during operation. There must be enough room for safety operation of the machine.

Figure 5 - Mounting Holes



POWER SOURCE

AWARNING

Do not connect to the power source until the machine is completely assembled.

The machine is wired for 120 volts, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position. Running the unit on voltages which are not within range may cause overheating and motor burn-out. Heavy loads require that voltage at motor terminals be no less than the voltage specified on nameplate.

 Power supply to the motor is controlled by a locking rocker switch. Remove the key to prevent unauthorized use.

GROUNDING INSTRUCTIONS

AWARNING

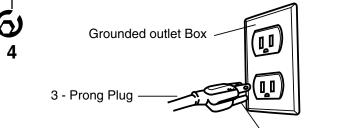
Improper connection of equipment grounding conductor can result in the risk of electrical shock.

- The machine should be grounded while in use to protect operator from electrical shock.
- In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for the electricity.
- This machine is equipped with an approved 3-conductor cord rated at 150V and a 3-prong grounding type plug (Figure 6) for your protection against shock hazards.
- Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown (Figure 6)
- The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Check with a qualified electrician or service personnel if these instructions are not completely understood or if in doubt as to whether the tool is properly grounded.



Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician. Use only 3-wire extension cords, that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as show in Figure 6

Figure 6 - 3-Prong Receptacle



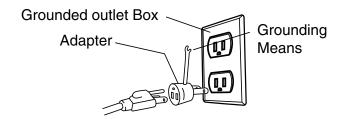
WARNING

Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

- Inspect tool cords periodically, and if damaged, have repaired by an authorized service facility.
- The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.

A temporary 3-prong to 2-prong grounding adapter (see Figure 7) may be used to connect this plug to a matching 2-conductor receptacle as shown in figure 7. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician.

Figure 7 - 3-Prong Receptacle



In Canada, the use of temporary adapter is not permitted by the Canadian Electric Code. Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system.

 Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper ground, grounding means must be tested by a qualified electrician.

EXTENSION CORDS

Use proper extension cords. Make sure the extension cord is in good condition. Use only 3-wire extension cords have 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug. When using an extension cord, make sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in the voltage, resulting in loss of power and overheating. Use the table to determine the minimum wire size (A.W.G.) extension cord.

Extension Cord Length

Wire Size	. A.W.G.
Up to 25 ft	18
25 to 50 ft	

NOTE: Using extension cords over 50 ft. long is not recommended.

MOTOR

Grounding Prong

Planer is supplied with a 2.4 HP motor installed. The 120 Volt AC universal motor has the following specifications:

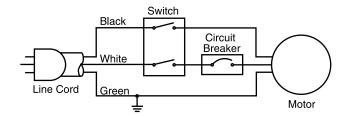
Horsepower (Maximum Developed)	. 2.4 HP
Voltage	120
Amperes	15
Hertz	60
Phase	Single
Cutterhead RPM	8.000

ELECTRICAL CONNECTIONS

▲ WARNING

- Turn the switch off and disconnect the machine from power source before performing any repair or maintenance work.
- Some electrical wiring and connection work must be performed by qualified electrician in accordance with local regulations.
- Scheme of the motor and electric wiring inside this machine is shown in Figure 8
- · There is a green grounding wire fastened to the frame of the machine to provide Shock Protection. Do not disconnect the Grounding Wire from the frame.
- · The Motor is rated for used at 120 Volts.
- Connect this machine to 3-Conductor Power outlet with appropriate rating only.
- Use only 3-pronged Extension Power Cord with appropriate rating with this machine.
- · When change the power cord, use only 3-pronged Power Cord with appropriate rating.
- The Power switch is a Single Pole Rocker switch with Locking Mechanism. Remove the Key when not in use to prevent accidents.

Figure 8 Wiring Schematic



DESCRIPTION

POWERTEC PRO 13" planer handles workpiece up to 13" (330 mm) wide and 6" (152 mm) thick. The planer features a powerful 15 amp, 2.4 HP (max. developed) motor with overload protection, built-in dust collection for fast removal of wood chips, rollercase lock for uniform thickness, depth-of-cut gauge and 6 pre-set depth gauge setting for convenient and consistent set-up, sturdy four-post design for snipeless planing, easy blade change, top rollers for workpiece return and larger extension tables with rollers for smooth operation.

SPECIFICATIONS

Maximum Cutting Width	13" (330 mm)
Max Cutting Height	6" (152 mm)
Cutting Depth for Width from 0" to 6"	3/32" (2.4 mm)
Cutting Depth for Width from 6" to 13"	1/16" (1.6 mm)
Cuts per Minute	16,000
Feed Rate	19 FPM
Table Material	Stainless Steel
Table Size13" x 10-1/4" ((330 mm x 260mm)
Table Size with Extension13" x 24-5/8"	(330 mm x 625 mm)

AWARNING

For our own safety, read the entire operating manual and safety instructions before using this tool.

SAFETY PRECAUTIONS

- Be aware of general power tool safety. Make sure all the safety rules are understood.
- Disconnect the machine from power source whenever adjusting or replacing any parts.
- Do not plug in unless switch is in the "OFF" position.
- · Keep hands away from all moving parts.
- Wear eye protection or face shield during operation.
- Make sure all mobile parts move freely and are free from interference.
- Keep blades sharp, aligned and properly attached cutterhead.
- Properly secure the blades in the cutterhead.
- Never turn the machine "ON" with the workpiece contacting the cutterhead.
- Never make cuts deeper than 3/32" (2.4mm) to prevent kickback.
- Do not force cut. Slowing or stalling will overheat the motor
- Do not perform planing on workpiece shorter than 5", narrower than 3/4", wider than 13" or less than 1/8" thick.
- · Properly support long or wide workpieces.
- Do not perform a workpiece that is warped, contains knots, or is embedded with foreign objects (nails, staples, etc) to prevent kickback.
- Do not feed a workpiece into the planer outfeed table.
- Do not allow anyone to stand or cross in line of cutterhead rotation. Kickback or thrown debris will travel in this direction.

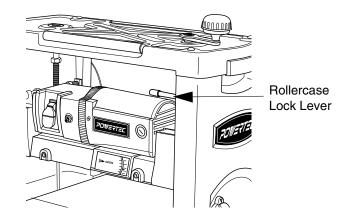
- Turn switch off and disconnect power whenever planer is not in use.
- Keep planer maintained. Follow maintenance instructions.

ROLLERCASE LOCK

Refer to Figure 9

- Rollercase Lock is the locking mechanism that prevents rollercase from movement during planning operation.
 The rollercase lock lever is located on the right side panel, between the side panel and the rollercase. It is easily visible from the front of planer.
- To lock the rollercase, pull down the rollercase lock lever. To unlock the rollercase, lift up the Rollercase Lock Lever.
- Always use rollercase lock for smooth planning and uniform thickness.
- Always unlock the rollercase lock before adjusting the rollercase height. The Locking mechanism will wear out prematurely if excessive force is used to move the rollercase while locked.

Figure 9

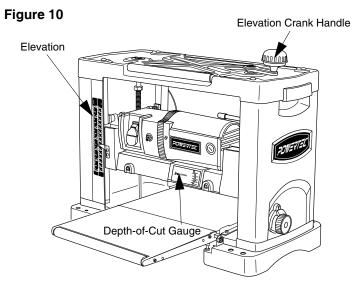


ROLLERCASE HEIGHT ADJUSTMENT

Refer to Figure 10

- Rollercase is the centerpiece of the planer machine. It contains motor, cutterhead with blades, infeed and outfeed rollers, dust collection assembly, and depth-of-cut gauge.
- Unlock the rollercase lock before moving the rollercase up or down.
- The rollercase can be moved up or down precisely by rotating the elevation crank handle on the top of planer machine. The elevation crank handle can be installed on either right or left side of the planer top. One complete turn of elevation crank handle is equivalent to 1/16" movement of rollercase in either direction.

- There is an elevation scale at the front of left side panel.
 It has a pointer with English and Metric scale. The
 reading is the height of cutterhead from the table
 platform. Therefore, the elevation scale setting
 represents the approximate thickness of the workpiece
- Elevation scale is calibrated in factory and should have reasonable accuracy. For woodworking of precision, use of calipers after each planning is recommended.



DEPTH OF CUT

Refer to Figure 10

after planning.

- The depth-of-cut is the thickness of wood material removed from the surface of workpiece during each pass. The depth-of-cut is determined by the relative position of rollercase to the top of workpiece.
 Depth-of-cut can be easily measured and adjusted with depth-of-cut gauge.
- Depth-of-cut gauge is the small measuring device located on the right lower corner of rollercase front. The reading ranges from 0" to 3/32".
- To use the depth-of-cut gauge, place the workpiece under the gauge. Crank down the rollercase until it touches the workpiece. Now watch the gauge while carefully move the rollercase up and down, until the desired depth-of-cut reading appears.
- To protect long use life of motor and cutterhead unit, the recommended maximum depth-of-cut are:

3/32" for workpiece up to 6" wide 1/16" for workpiece from 6" to 13" wide

 Depth-of-cut gauge is calibrated in factory and should have reasonable accuracy. For woodworking of precision, use of calipers after each planning is recommended.

THICKNES PRE-SET GAUGE

Refer to Figure 11

 Thickness pre-set gauge is a knob with scale that shows six settings: 1/8", ½", ½", ¾", 1", and 1-1/4". It is located at bottom of right side panel, on right side of the planer machine.

- Use thickness pre-set gauge to set the desired thickness of the final finished product.
- Thickness pre-set gauge works by stopping the roller-case from moving any lower once it reaches the pre-set thickness. The workpiece may need to pass the planer several times before reach the desired final thickness. But the thickness pre-set gauge will ensure the final finish product is not over done. This makes the whole planing process easier and faster. This is especially useful and efficient when processing several pieces of wood product with the same desired thickness.
- Thickness pre-set gauge is calibrated in factory and should have reasonable accuracy. For woodworking of precision, use of calipers after each planning is recommended.

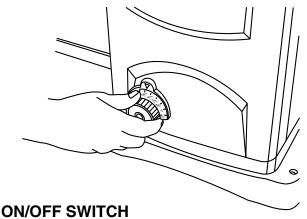
To Set the Thickness Pre-set Gauge:

- With the machine turned off, raise the rollercase until it is slightly higher than the intended workpiece.
- Place the workpiece below the Rollercase to check that it can pass under the rollercase easily.
- Turn the control knob of thickness pre-set gauge to the desired setting.
- Now the rollercase will stop moving lower once it reaches the set thickness.

To Reset the Thickness Pre-set Gauge:

- With the machine turned off, use elevation crank handle to raise the rollercase by a few turns. This is to ensure the gauge is not jammed and is ready to be reset.
- Repeat the same procedures as to set the thickness pre-set gauge.

Figure 11



Refer to Figure 12 and 13

The ON/OFF switch is located on the front of planer. To turn the machine ON, pull the switch to the up position. To turn the machine OFF, push the switch to the down position.

NOTE: When the machine is not in use, the machine should be locked in the "OFF" position to prevent unauthorized use.

 To lock the machine, turn the switch to the "OFF" position. Pull the key out. The switch cannot be turned on without the key.

- If the key is removed when the switch is at the "ON" position, the switch can be turned off but cannot be turned on again.
- To unlock, place the key into the slot on switch unit until it snaps.

Figure 12 - ON/OFF Switch

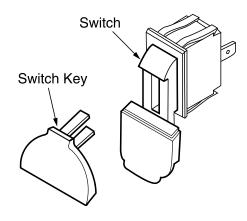
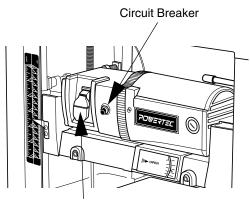


Figure 13



ON/OFF Switch

CIRCUIT BREAKERR

Refer to Figure 13

- This machine has a circuit breaker installed next to the main power switch. The circuit breaker protects the motor unit by shutting off the power supply when excessive electric current is detected. If the circuit breaker is tripped, the machine will not power on.
- Before reset of circuit breaker, check motor, switch, and line connection for short circuit or faulty components.
- To reset the circuit breaker, Turn the switch to "OFF" position. Then press the circuit breaker reset button next to the main switch.

BEFORE OPERATING THE PLANER

- · Understand the machine function and observe all the safety measurement.
- In general, the desired depth-of-cut and final thickness of workpiece are determined before planing. Since there is limit of maximum depth-of-cut, the workpiece may have to pass the machine several times before reach the desired final thickness.
- The Rollercase has to be lowered manually before each pass, if more than one pass are necessary.
- The planer machine setting involves readings of elevation scale, depth-of-cut gauge, thickness pre-set gauge, and operation of rollercase elevation crank handle and thickness pre-set control knob.
- The rollercase elevation crank handle controls rollercase position in height. In combination with the depth-of-cut gauge, the amount of wood material to be removed (depth-of-cut) in each pass can be determined. Thickness of the remaining workpiece after planing (final thickness) is observed in elevation scale. The thickness pre-set gauge and control knob are used to stop rollercase automatically when it reaches the pre-determined final thickness. It prevents overcut and makes the whole planing process easier and faster.
- In general, thin depth-of-cut produces better outcome: smooth surface, even thickness, less kickback, less snipe, even thickness, less wear on cutterhead and motor.
- Set thin depth-of-cut for hardwood, wide workpiece, and uneven surface.
- This planer machine is designed to process natural wood material only.
- · Remove glue and any foreign objects from the workpiece before planing.
- Avoid wood stock with many or large knots.
- · Avoid wood stock with excessive twisting, cupping, or bowing.
- If necessary, process one side with jointer machine first to obtain at least one flat surface before using the planer machine.
- For better outcome, plane both sides of wood board with ½ of depth removed from each side. This will produce two smooth surfaces with equal amount of moisture content. The board is less likely to warp when it dries naturally.
- Test cut with similar wood material for better accuracy.
- The Minimal length of workpiece that can be processed is 5". The minimal width is 3/4". The minimal thickness is 1/8". (This is not to be confused with depth-of-cut.)
- The maximal width of workpiece that can be processed is 13". The maximal thickness is 6".
- To protect long use life of motor and cutterhead unit, the recommended maximum depth-of-cut are: 3/32" for workpiece up to 6" wide 1/16" for workpiece from 6" to 13" wide
- Use additional roller stand for workpiece longer than 24".



OPERATE THE PLANER MACHINE

- Always use safety wears and observe safety rules.
- Never stand directly in the pathway of the workpiece, including infeed and outfeed, to avoid injury. The operator should stand on the side of the elevation crank handle.
- Feed the workpiece "WITH The Grain" as much as possible. That is, at the contact point, the grain points to the same direction as that of rotating cutterhead. For this planer machine, the grain direction on the top of workpiece should point toward the front of the machine.
- Place the workpiece on the infeed table. The surface to be planed faces up.
- With the planer properly set up, turn the machine on.
- · Hold the workpiece firmly and advance toward the infeed roller slowly.

- Stop pushing or pulling the workpiece once it is engaged by the infeed roller.
- The infeed roller will move the workpiece automatically through the planer.
- · For long workpiece, gently support the weight of the workpiece while it is moved into and out of the planer to stabilize the workpiece and decrease snipe.
- Move to the back of machine to receive the workpiece. Do not pull.
- Use the Return Roller on top of Planer to help transport big workpiece back to infeed side.
- Use the entire width of the cutterhead to avoid uneven wear of knifes.
- · For precision woodwork, measure thickness with calipers after each planing.



AWARNING

Turn the switch to the OFF position and disconnect the machine from power source before any maintenance.

CHECK AND REPLACE THE BLADES

Refer to Figure 15 and 16

- Locate the blade cover on the back of planer. Loose socket head bolts with L wrench and remove the blade cover.
- Identify the cutterhead inside. Watch for TWO sharp blades on the cutterhead.
- Without touching the blades, carefully turn the cutterhead until it stops by the self-engaging latch.
- Use L Wrench to remove 6 bolts on the blade assembly.
- Attach 2 provided magnets to the gib and carefully removed it.
- Attach 2 provided magnets to the blades and carefully removed it.
- Check to see if the blade is dull, worn, nicked, torn, and uneven. These can result in poor performance such as fuzzy grain, chipped grain, raised grain, raised edge, and uneven cut.
- Replace with new blades in pairs only. Never mix new blade with old blade on one cutterhead. Never mix blades with different degrees of wear. Never use a blade where unbalanced wear from side to side is present.
- To replace with the new blade, use the 2 provided magnets to transfer the blade onto the cutterhead.
 Position the blade so it sits securely on the two pins.
- Use the 2 provided magnets to transfer the gib onto the blade. Position the gib so the 6 holes is aligned with the holes on the cutterhead.
- Tighten and secure with 6 bolts.
- To access the other blade assembly, gently pull and hold the latch on the side of cutterhead to release it.
 Once the cutterhead rotates, release the latch.
- Without touching the blades, carefully turn the cutterhead until it stops the self-engaging latch.
- Repeat the same procedure to check and replace the other blade.
- Replace the blade cover and secure with the socket head bolts.

Figure 14

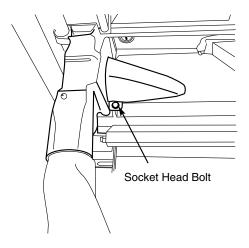
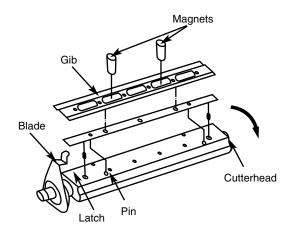


Figure 15



INSPECT AND REPLACE THE MOTOR BRUSHES

- Turn the switch in the "OFF" position and disconnect the planer machine from the power source.
- Inspect the motor brushes after every 100 hours of use. Brush life varies, depending on the motor loads.
- Replace the motor brushes in set (two brushes) only. Replace with new parts only.
- To inspect motor brushes, unscrew brush caps on the sides of motor. There are two caps, one on each side of motor.
- Remove brush assembly from motor.
- Replace motor brushes if the length of carbon has been worn to less than 3/8", or if the springs are worn, or if the motor does not run smoothly.
- · Replace with new motor brush assembly.
- Replace the brush cap and tighten the screw.
- Repeat the same procedure on the other side of motor.

ADJUST ROLLERCASE LEVEL

Refer to Parts Illustration

- The rollercase level is checked in factory and should work properly. However, it can become out of alignment during shipping and handling.
- If the rollercase (Key No.102) is not level with the base (Key No. 167), the depth-of-cut will not be even from side to side. The end result is tapered cut where the thickness on one side is different from the other side. This can result from uneven wear of the blade as well. Check to see blades are in good working order.
- · Test run with two test pieces on right and left ends of the planer to determine the amount needs to be corrected.
- · Carefully place the planer on its back.
- From the bottom of the machine, identify and loose two socket head bolts (Key No. 181) that secure chain idler bracket (Key No. 179). (The adjustment can be done from either side.)
- Release the chain idler bracket (Key No. 179) and loose the chain (Key No. 186).
- Identify the elevation screws (Key No. 166) and rotate according to the amount needs to be corrected. Each complete turn will move that side of rollercase by 1/16".
- Replace and partially tighten the chain idler bracket (Key No. 179) and two socket head bolts (Key No. 181).
- Tighten the chain (Key No. 186) with the chain idler bracket (Key No. 179).
- Tighten the socket head bolts (Key No. 181) completely.
- Sit the planer upright carefully.
- Test run the planer to check the rollercase level adjustment.
- Repeat the procedures if further adjustment is necessary.

REPLACE V-BELTS

Refer to Parts Illustration

- There are two V-belts (Key No. 47 and 140) in this machine.
- To inspect V-belts, the head panel (Key No. 10) needs to be removed.
- Remove socket pan head screw and washer (Key No. 1 and 2) on the rollercase elevation crank handle. Remove the crank handle.
- Remove the thickness pre-set gauge control knob (Key No. 206). Simply pull it off.
- Remove 4 screws (Key No. 15) on the head panel and removed the head panel (Key No. 10).
- Remove right side panel (Key No. 205).

- Now both V-belts (Key No. 47 and 140) are visible. Check the belt tension and any wear, tear, or crack on the V-belts. Loose or damaged V-Belts need to be replaced. Replace with new V-belts only.
- To replace V-belts, gently remove the used V-belts by turning the pulleys and gradually sliding the V-belts off the pulleys (Key No. 46, 138 and 142).
- To install new V-belt, slide the new V-belt onto pulleys gradually while rotating the pulleys. Check to see the V-belt sits securely on both pulleys.
- · Repeat the same procedure to replace another V-belt if necessary.
- Replace right side panel (Key No. 205).
- Replace head panel (Key No. 10). Make sure the side panels (Key No. 205) are in alignment.
- Tighten 4 screws (Key No. 15) on the head Panel.
- Replace the rollercase elevation crank handle. Secure with socket pan head screw and washer (Key No. 1
- Replace the thickness pre-set gauge control knob (Key No. 206).

CLEAN AND LUBRICATION

- Vacuum clean the planer machine to remove wood chips, saw dust, and debris.
- · Use cleaner solution to remove resin and grease residue.
- · Check and empty dust collection bag.
- · Remove saw dust, wood chips, and grease from chains
- · The bearings in motor and cutterhead units are permanently sealed in factory and should require no further lubrication.
- Four components require regular lubrication: rollercase elevation screws (2x), rollercase lock cam, the columns (4x), and the feed roller chain drive. Remove the top and both side panels to access these components.
- Remove old grease residues, with minerals spirits if necessary, then apply a coat of light grade multi-purpose grease.
- · Chain drive should be cleaned before lubrication. Use spray oil to lubricate the chain. The chain should be wiped dry after the lubricant has had enough time to penetrate the links.
- The work table and extension table can be coated with very thin lubricating wax to protect the surface from rust and to facilitate smooth feed during operation.

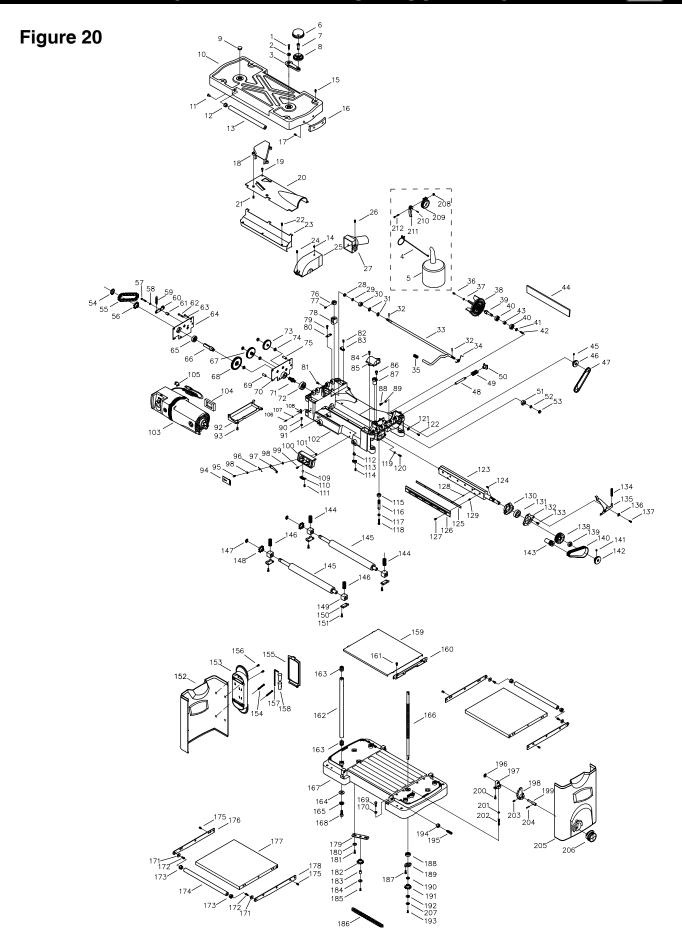


TROUBLESHOOTING

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SYMPTON	POSSIBLE CAUSE(S)	SOLUTIONS
Motor will not start	Low voltage Short circuit in line cord or plug Short circuit in motor Open circuit or loose connection in motor Incorrect fuses or circuit breakers Defective switch Defective capacitor Motor overload results in circuit breaker tripped	Check power supply for proper voltage Inspect line cord and plug for faulty insulation or shorted connection Inspect connection on motor Inspect connection on motor Replace with correct fuses or circuit breakers Replace switch Replace capacitor Turn the machine off and reset overload protection.
Motor stalls or fails to reach full speed	1. Power overload 2. Low voltage from power supply 3. Undersized line cord 4. Motor overload 5. Short circuit or loose connection in motor 6. Incorrect fuses or circuit breakers 7. Wood chips clogged	1. Reduce workload on the power supply 2. Check power supply for proper voltage 3. Use line cord of adequate size or reduce length of wiring 4. Reduce load on motor 5. Inspect the connection in motor for loose or shorted connection 6. Replace with correct fuses or circuit breakers 7. Inspect chip blower assembly and fan belt. Remove excessive wood chips
Motor overheats	Motor overloaded Excessive dust build-up results in decreased air circulation	Reduce load on motor. Turn off the machine until motor cools down Remove dust build-up
Frequent tripping of circuit breaker	Motor overload Inadequate capacity of circuit breaker Circuit overload Blades are dull	Reduce load on motor Replace with correct circuit breaker Reduce circuit load Sharpen or replace blades
Snipe	 Inadequate support of workpiece Blades are dull Uneven force on cutterhead Rollercase is not level with planer base Workpiece is not butted properly 	Support long workpiece with additional platform Replace blades Push workpiece gently during operation Adjust table and rollercase level properly Butt end to end each workpiece as it passes through planer
Surface not smooth	Blades are dull Fuzzy grain due to high moisture content in wood Torn grain due to blades cutting against grain The cut is too deep	Replace blades Use dry wood Change direction and feed workpiece along grain Decrease depth of cut
Uneven thickness from side to side	Rollercase is not positioned level with planer base	Adjust table and rollercase level properly

SYMPTON	POSSIBLE CAUSE(S)	SOLUTIONS	
Difficulties in adjusting rollercase elevation	 Rollercase lock is engaged Worn elevation screws Dirty elevation screws or columns Dirty chains or sprockets Rollercase is not positioned level with planer base Friction between rollercase and covers 	Release rollercase lock Replace elevation screws Clean and lubricate elevation screws and columns Clean and lubricate chains and sprockets Adjust table and rollercase level properly Clean and adjust rollercase	
Wood thickness does not match depth of cut setting	Indicator is not set correctly	Adjust and tighten indicator properly	
Chain jumping	Worn chains Worn Sprockets	Replace chains Replace sprockets	
Belt slipping	Belt is loose	Replace V-belt	
Reollercase cannot be lowered to the desired height	Workpiece thickness gauge setting limits rollercase movement	Change thickness gauge setting	
Excessive dust in air	Leak in bag or hose connections Broken dust bag	Check bag and hose connections Check dust bag and bag clamp	
Excessive fan noise	Loose fan assembly Large wood chips stuck in fan housing	Inspect fan assembly and tighten fan screws Turn machine off, remove blade guard, and clean the chamber	



14	

13" PLANER PARTS LIST

Key No	o. Part No.	. Description	Specification	Qty	Key No	o. Part No	. Description	Specification	Qty
1	PL1300001	Socket Pan Head Screw	M6xP1.0x20L	1	60	PL1300060	Tension Wheel Assembly		1
2	PL1300002	Flat Washer	ø6.3xø16x1.5T	1	61	PL1300061	Spacer		1
3	PL1300003	Handle		1	62	PL1300062	Hex Socket Pan Head Screw	M5xP0.8x30L	2
4	PL1300004	Hanger		1	63	PL1300063	Hex Socket Pan Head Screw	M5xP0.8x35L	4
5	PL1300005	Dust Collection Bag		1	64	PL1300064	Outside Cover		1
6	PL1300006	Handle Cap		1	65	PL1300065	Bearing	6002	1
7	PL1300007	Handle Bolt		1	66	PL1300066			1
8	PL1300008	Handle Base		1	67	PL1300067	Gear (Intermediate)		1
9	PL1300009	Plug		1	68	PL1300068	Gear (Large)		1
10	PL1300010	Upper Cover		1	69	PL1300069	Spacer		2
11	PL1300011	Clevis Pin		4	70	PL1300070	Inside Cover		1
12	PL1300012	Bushing		4	71	PL1300071	Pinion Gear		1
13	PL1300013	Roller		2	72	PL1300072	Bearing	6202	1
14	PL1300014	Plug		1	73	PL1300073	Gear (Small)		1
15	PL1300015	Hex Soc. Pan Head Screw	M8xP1.25x16L	4	74	PL1300074	Bushing		5
16	PL1300016	Grip		2	75	PL1300075	Space Undercut		4
17	PL1300017	Tap Screw	ST4.2x6L	4	76	PL1300076	Nut		1
18	PL1300018	Air Guide		1	77	PL1300077	Set Screw	M6xP1.0x6L	1
19	PL1300019	Hex Soc Pan Head Screw	M5xP0.8x10L	2	78	PL1300078	Elevating Nut (LH.)		1
20	PL1300020	Dust Guard		1	79		Hex Socket Pan Head Screw	M5xP0.8x10L	2
21	PL1300021	Pan Head Tap Screw	M4.2x9.5F	3	80	PL1300080	Set Plate		1
22	PL1300022	Hex Socket Head Screw	M5xP0.8x10L	3	81	PL1300081	Hex Socket Pan Head Screw	M5xP0.8x14L	2
23	PL1300023	Dust Chute		1	82	PL1300082	Pan Head Screw	M5xP0.8x10L	1
	PL1300024	Hex Soc Pan Head Screw	M5xP0.8x10L	2	83	PL1300083	Cable Clamp	UC-1.5	1
	PL1300025			1	I		Hex Socket Pan Head Screw		2
		Hex Soc Pan Head Screw	M6xP1.0x25L	1	85	PL1300085			1
		Collector Tube		1	86	PL1300086			1
28	PL1300028		M8xP1.25	1			Elevating Nut (R.H.)		1
		Spring Washer	ø8	1	88		Hex Head Screw	M5xP0.8x16L	4
	PL1300030			1	89	PL1300089		M5xP0.8	4
31			ø9	2		PL1300090		M5xP0.8x8L	2
	PL1300032	· ·	ø3x12L	2	91		Ext Tooth Washer	ø6	2
	PL1300033		DOXILE	1	l '	PL1300092			1
	PL1300034			1	93		Hex Socket Pan Head Screw	M5xP0 8x10I	2
		Lock Lever Cap		1	94		Pointer Cover	100X1 0.0X102	1
		Hex Soc Pan Head Screw	M6xP1.0x12L	1	95		Pan Head Screw	M4xP0.7x16L	1
		Flat Washer	ø6	1		PL1300096		WHAT O.7 A TOL	1
	PL1300037		Ø0	1		PL1300097			1
	PL1300039			1	I	PL1300097			2
			6000		I		Pan Head Screw	M4xP0.7x8L	2
	PL1300040	•		2 1	I		Pointer Housing	WAXEU.7XOL	1
	PL1300041	Hex Soc Pan Head Screw M	ø5 5v10	1	I	PL1300100	•		•
			3810	-	I	PL1300101			1 1
	PL1300043	•		1	I	PL1300102			
		Deflector Cover	Me. D4 o. el	1	I				1
	PL1300045		M6xP1.0x6L	1	I	PL1300104			1
	PL1300046	•		1	l	PL1300105	J		1
	PL1300047		135J2	1	l		Cross Screw	M4x6	2
	PL1300048			4	I		Flat Washer	ø4	2
	PL1300049		ø1.8x18x25.2L	4	I	PL1300108			1
	PL1300050			4	I	PL1300109		ø12	1
		CAM (Right)		1	I		Retaining Plate		1
		Spring Washer	ø8	1	I	PL1300111	•	3x6	2
	PL1300053		M8xP1.25	1	I	PL1300112	•		4
		Ext Ret Ring	ø24	1	I		Magnet Seat		4
	PL1300055			1	I		Flat Head Screw	M5xP0.8x10L	4
	PL1300056			1	I	PL1300115		M10xP1.5	1
		Hex Socet Pan Head Screw	M5xP0.8x20L	1		PL1300116			1
		Flat Washer	ø5	1		PL1300117		M5xP0.8	1
59	PL1300059	Spring		1	118	PL1300118	Hex Head Screw	M5xP0.8x16L	1

		1	3" PLAI	NER	PAF	RTS LI	ST		15
Key N	o. Part No		Specification	Qty	Key No			Specification	Qty
119	PL1300119	Flat Washer	ø8	1	178	PL1300178	Roller Plate (Right)		2
120	PL1300120	Hex Socket Pan Head Screw	M8xP1.25x25L	1	179	PL1300179	Idler Bracket		1
121	PL1300121	Flat Washer	ø5	1	180	PL1300180	Flat Washer	ø6	2
122	PL1300122	Hex Socket Pan Head Screw	M5xP0.8x10L	1	181	PL1300181	Hex Socket Pan Head Screw	M5xP0.8x12L	2
123	PL1300123			1	182	PL1300182	Sprocket		1
124		•	A5x12L	1	l .	PL1300183			1
125	PL1300125			2	184		Flat Washer	ø6	1
126		Knife Lock Bar		2	185		Hex Socket Pan Head Screw	M6xP1.0x20L	1
127		Pan Head Screw	M6xP1.0x16L	12	l .	PL1300186		ME DO 0 401	1
128		Cutterhead Pin		4	l .	PL1300187	•	M5xP0.8x10L 6000	4 2
	PL1300129	. •		4 1	l .	PL1300188	Bearing Retainer	8000	2
130 131	PL1300130	Bearing Bed	6204	1	l .		Spindle Washer		2
		Bearing Cover	0204	1	191		•		2
133		Hex Socket Pan Head Screw	M8vP0 8v12l	3	l .	PL1300192	•	ø4.3xø16x2t	2
134	PL1300134		WOAT O.OXTZE	1	l		Hex Socket Pan Head Screw		2
135		Cutterhead Lock		1	l .	PL1300194		M10xP1.5	4
		Lock Spacer		1			Adjust Screw		4
137		Hex Socet Pan Head Screw	M5xP0.8x10L	1	l .		Ext. Ret. Ring	ø8	1
138		Cutterhead Pulley		1	l .		Step Bracket		1
139	PL1300139	•	M16	1	l	PL1300198	•		1
140	PL1300140	Belt	135J6	1	199	PL1300199	•		1
141	PL1300141	Set Screw	M6xP1.0x6L	1	200	PL1300200	Hex Socket Head Screw	M5xP0.8x16L	2
142		Cutterhead Extend Pulley		1	201	PL1300201	Steel Ball	ø6	1
143	PL1300143	Motor Pulley		1	202	PL1300202	Spring		1
144	PL1300144	Spring (Outfeed)		2	203	PL1300203	Set Screw	M6xP1.0x6L	1
145	PL1300145			2	204	PL1300204	Spring Pin	ø4x18L	1
146	PL1300146	Spring (Infeed)		2	205	PL1300205	Side cover (R.H.)		1
147	PL1300147	Ext. Ret. Ring	ø15	2	206	PL1300206	Step Knob		1
148	PL1300148	Sprocket		2	207	PL1300207	Spring Washer	ø4	4
149	PL1300149	Bearing Block		4	208	PL1300208	Hex Nut M6		1
150	PL1300150	Retainer		4	209	PL1300209	Bag Clamp		1
151	PL1300151	Hex Socket Pan Head Screw	M5xP0.8x10L	8	210	PL1300210			1
		Side Cover (L.H.)		1	211		Clamp Handle		1
	PL1300153			1	212	PL1300212	Pivot Bolt	6x40	1
	PL1300154		M5x30	2					
		Tool Box Cover		1					
	PL1300156	•	M5x12L	2					
		Hex Wrench	4mm	1					
	PL1300158	· ·		2					
	PL1300159			1					
	PL1300160		MEVDO 0:40	2					
	PL1300161 PL1300162	Hex Socket Pan Head Screw	IVIDXPU.8XTUL	8 4					
	PL1300162 PL1300163								
		Flug Flat Washer	ø8	8 4					
		Spring Washer	ø8	4					
		Elevating Screw	20	2					
	PL1300167			1					
		Hex Socket Pan Head Screw	M8x45	4					
		Hex Head Screw	M6xP1.0x20L	4					
	PL1300170		M6xP1.0	4					
171				4					
		Hex Socket Head Screw	M6xP1.0x8L	4					
	PL1300173			4					
		Support Roller		2					
		Pan Head Screw	M4xP0.7x8	12	I				
176	PL1300176	Roller Plate (Left)		2					
177		Extension Table		2					
-				_					



WARRANTY

Thank you for investing in a **POWERTEC** power tool. These products have been designed and manufactured to meet high quality standards and are guaranteed for domestic use against defects in workmanship or material for a period of 12 months from the date of purchase. This guarantee does not affect your statutory rights.

SOUTHERN TECHNOLOGIES LLC. BENCH TOP AND STATIONARY POWER TOOL LIMITED 1 YEAR WARRANTY AND 30-DAY SATISFACTION GUARANTEE POLICY

POWERTEC products are designed and manufactured by **Southern Technologies LLC.** All warranty communications should be directed to **Southern Technologies LLC.** 206 Terrace Dr. Mundelein, IL 60060, Attn: **POWERTEC** technical service; or by calling 1-877-393-7121 (toll free), 9 AM to 5 PM, Mondy through Friday, US Central Time.

30- DAY SATISFACTION GUARANTEE POLICY

During the first 30 days after the date of purchase, if you are dissatisfied with the performance of this **POWERTEC** tool for any reason, you may return the tool to the retailer from which it was purchased for a full refund or exchange. You must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the one year warranty period.

LIMITED ONE YEAR WARRANTY

This warranty covers all defects in workmanship or materials in this *POWERTEC* tool for a one year period from the date of purchase. This warranty is specific to this tool. **Southern Technologies**, **LLC** reserves the right to repair or replace the defective tool, at its discretion.

HOW TO OBTAIN SERVICE

To obtain service for this *POWERTEC* tool you must return it, freight prepaid, to an authorized *POWERTEC* service center for bench top and stationary power tools. You may obtain the location of the authorized service center nearest you by calling (toll free) 1-877-393-7121 or by logging on to the *POWERTEC* website at **www.southerntechllc.com**. When requesting warranty service, you must present the proof of purchase documentation, which includes a date of purchase. The authorized service center will either repair or replace any defective part, at our option at no charge to you. The repaired or replacement unit will be covered by the same limited warranty for the balance of one year warranty period.

WHAT IS NOT COVERED

This warranty applied to the original purchaser at retailer and may not be transferred.

This warranty does not cover consumable items such as saw blades, knives, belts, discs, cooling blocks and sleeves.

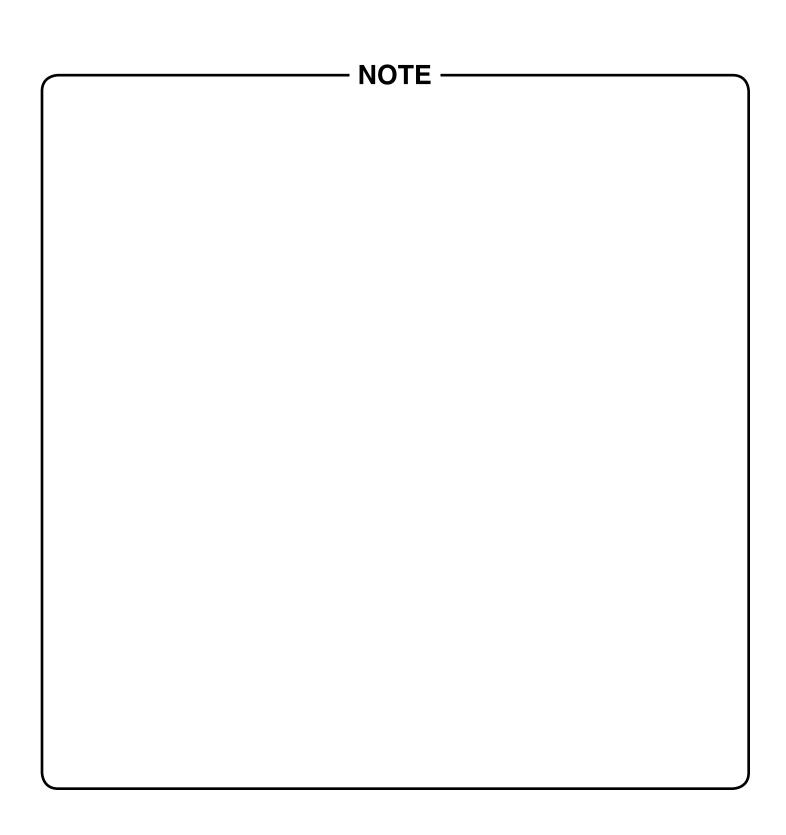
This warranty does not cover required service and part replacement resulting from normal wear and tear, including accessory wear.

This warranty does not cover any malfunction, failure or defect resulting from:

- 1) misuse, abuse, neglect and mishandling not in accordance with the owner's manual.
- 2) damage due to accidents, natural disasters, power outage, or power overload.
- 3) commercial or rental use.
- 4) alteration, modification or repair by other than an authorized service center for **POWERTEC** product.

DISCLAIMER

To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, that cannot be disclaimed under state law are limited to one year from the date of purchase. **Southern Technologies LLC**. is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Southern Technologies LLC., makes no warranties, representations, or promises as to the quality or performance of its power tools other than those specifically stated in this warranty.





Southern Technologies, LLC 206 Terrace Drive Mundelein, Illinois 60060